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FE033:
Integrity Management of Onshore & Offshore Pipelines

Training Description:

This intensive training course identifies the different strategies required to ensure that the integrity and reliability of pipelines is effectively managed throughout the entire life cycle from design through to decommissioning.

The Pipelines Integrity Management System (PIMS) aims to contribute to the successful achievement of the company's objectives and give assurance to management and shareholders that the pipeline network integrity is well maintained.

Training Objectives:

By the end of the training, participants will be able to:

- ✓ Maximize the economic value of the company by optimally design, maintain, operate and decommission pipelines to high and consistent standards
- ✓ Comprehend the different strategies required to ensure that the integrity and reliability of pipelines are effectively managed
- ✓ Understand the 10 reasons why pipeline integrity management fail
- ✓ Explain in detail the basic assets integrity management modules (8 Modules) and how PIMS can assure pipelines long term availability and productivity
- ✓ Explain the different inspection and monitoring techniques employed for pipelines and how good measurements may assist in the risk assessment and control process
- ✓ Learn major operator's advancement in pipelines inspection, operation and decommissioning
- ✓ Communicate major operator's advancement in PIMS realities and benchmark the pipelines integrity management practices with best-in-class operators
- ✓ Attend and effectively manage any challenges or obstacles encountered during the development of the PIMS framework within their organizations.

Training Designed for:

This course is intended for all Integrity Engineers and Leaders, Pipelines Maintenance, Inspection/Repair Engineers, Team Leaders and Managers, Operation & Production Professional, Pipeline's design Engineers, Construction Engineers, Commissioning Engineers, and Corrosion and Inspection Engineers.

Training Requirement:

"Hand's on practical sessions, equipment and software will be applied during the course if required and as per the client's request."

Contents can be adapted to your specific wishes. It is therefore possible to focus on specific modules of the training course as per client's learning needs and objectives. Further, it should be forwarded to us a month prior to the course dates.

Training Program:

DAY ONE:

- ❖ Introduction
  - Origin and Production of Oil & Gas, Integrity Management Life Cycle
  - Data Management and Acquisition

- Data source
- Data acquisition, migration and verification

- Hazard Identification & Risk Assessment
  - Risk assessment tools
  - Qualitative & and semi-quantitative risk assessment
  - Risk matrix mathematical model
  - Hazard and hazard control measure

DAY TWO:

❖ Asset Integrity Management Modules

- Monitoring & Inspection
  - Intrusive & non-intrusive monitoring
  - Inspection techniques, Risk Based Inspection (RBI)
- Implementation
  - FFS and defect assessment tools
  - Management of changes MOC
- Performance Management & Reporting Schedules
  - Identifying significant KPI's
  - Automation of KPI's reporting

DAY THREE:

❖ Asset Integrity Management Modules (cont'd)

- Roles and Responsibilities
  - RACI chart model
  - Competence review and verification of gaps
- Tactical Review and Audit
  - How well-designed audit can help the PIMS improvement
  - Audit scope and deliverables
- Experience Gained and Lessons Learned
  - Lesson learned from major accident in wider international community
- Corrosion Damage, Corrosion Control Measures
- Pipeline & Oil Fields Production Chemistry

DAY FOUR:

❖ Monitoring and Control Tools

- Pipeline Flow Assurance Problems, Design Consideration
- Risk Identification and Assessment
  - Risk and risk control measures
- Prediction Modelling
- Risk Based Inspection RBI, Remnant life Assessment RLA
- Fitness for Service FFS, Defect Assessment
- Monitoring

DAY FIVE:

❖ Road Map to Pipeline Service Life Extension

- Inspection Technique
  - Intelligent pigging
  - Routine mechanical cleaning

- Remote Operating Vehicle (ROV)
- Service Life Extension
- Commissioning & Decommissioning of Pipelines
- Emergency Preparedness (EPRS), Pipelines Repair Techniques
- Codes & Standards
  - Requirement of API 1160
  - PAS 55 part 1 & 2 (ISO 55000)
- Pipelines Integrity Key Performance Indicators (KPI's)
- Computer and Pipelines Management, Road Map to Pipeline Management Excellency

❖ Course Conclusion
❖ POST-ASSESSMENT and EVALUATION

Training Methodology:

This interactive training course includes the following training methodologies as a percentage of the total tuition hours:

- 30% Lectures, Concepts, Role Play
- 70% Workshops & Work Presentations, Techniques, Based on Case Studies & Practical Exercises, Gamification, Software & General Discussions
- Pre and Post Test

Training Certificate(s):

CMCT Internationally recognized certificate(s) will be issued to each participant who completed the course.

Training Fees:

TBA as per the course location - This rate includes participant's manual, hand-outs, buffet lunch, coffee/tea on arrival, morning & afternoon of each day.

Note: The 5% VAT (Value Added Tax), will be effective starting 01st of January 2018 as per the new regulation from the UAE Government. The VAT applies for all quotation both for local and abroad.

Training Timings:

Daily Timings:

07:45 - 08:00	Morning Coffee / Tea
08:00 - 10:00	First Session
10:00 - 10:20	Recess (Coffee/Tea/Snacks)
10:20 - 12:20	Second Session
12:20 - 13:00	Recess (Prayer Break & Lunch)
13:00 - 14:00	Last Session

For training registrations or in-house enquiries, please contact:
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